



Brightwood Water Works **41-00143**

TITLE:

CROSS CONNECTIONS OR PHYSICAL CONNECTIONS WITH OTHER WATER SUPPLIES OR SYSTEMS

PURPOSE: To outline the District's requirements for cross connections or physical connections with other water supplies or systems.

POLICY:

Neither cross connections nor physical connections of any kind will be made to any other water supply, whether private or public, without the written approval of the District. Included in this category are all pipe lines, appurtenances and facilities of the District's system and all pipes, appurtenances, pumps, tanks, storage reservoirs, facilities, equipment, appliances, etc. of other systems, whether located within or on public or private property or the premises.

1.1 All plumbing within the building served by the District will be so installed and all plumbing fixtures so constructed as to prevent pollution of water supply by back siphonage or cross connection.

1.2 The District reserves the right to inspect any facility at any time for cross connections. The District will determine what backflow preventer is required.

1.3 Water service to any premises known or found to have such defects and hazards will be disconnected and not restored until such defects and hazards have been eliminated or until the appropriate backflow assembly as determined by the District has been installed and tested.

1.4 **Prohibitions and Conditions:**

No water service connection to any premise will be installed or maintained by the District unless the water supply is protected as required by the Oregon Administrative Rules 333-61-0070 and these Rules and Regulations. Service of water to any premise will be discontinued by the District if a backflow prevention assembly required by OAR 333-61-0070 and these Rules and Regulations is not installed, tested, and maintained, or if it is found that a backflow prevention assembly has been removed, bypassed, or if an unprotected cross-connection exists on the premise. Service will not be restored until such conditions or defects are corrected.

All backflow prevention assemblies required under this section will be of a type and model approved by the Oregon State Health Division and installed as per Oregon Administrative Rule 333-61-0071 and these Rules and Regulations. In addition, all backflow prevention assemblies must meet District specifications.

1.5 User's facilities will be open for inspection at all reasonable times to authorized representatives of the District to determine whether unprotected cross-connections or violations exist. If such violation becomes known, the District will deny or immediately discontinue service to the premises by providing for a physical break in the service line until the user has corrected the condition(s).

1.6 The user or the owner of any premises obtaining water from the District who treats the water in any way or adds any chemical or substance to the water will notify the District.

1.7 A District approved backflow prevention assembly will be installed on each service line to user's water system at or near the property line unless variance is granted by the District. If variance is granted, then the backflow prevention assembly will be located immediately inside the building being served but, in all cases, before the first branch line leading off the service line wherever the following conditions exist:

- A. There is an auxiliary water supply which is, or can be, connected to potable water piping.
- B. There is piping for conveying liquids other than potable water, and where that piping is under pressure and installed in proximity to potable water piping.

- C. There is intricate plumbing which makes it impractical to ascertain whether or not a cross-connection exists.
- D. There is a structure more than 32 feet in height (as measured between the highest peak of that structure and the elevation of the service at the public water main to those premises).
- E. There is a risk of back siphoning or back pressure.
- F. There is a cross-connection or a potential cross-connection.
- G. There is an irrigation/sprinkler system not protected by a properly functioning backflow assembly.
- H. The owner of a mobile apparatus to which the District supplies water will provide for backflow prevention by installing a reduced pressure backflow prevention assembly or provide an approved air gap separation on the mobile apparatus.
- I. When there is a standby fire line/sprinkler system using piping material that is not approved for potable water use and/or that does not provide for periodic flow through the line during each 24-hour period, a double check detector assembly (DCDA) will be the minimum protection required. Notwithstanding the minimum standard:

1) Any system with provisions for adding foamite or toxic fire retardants, whether directly connected or not, will require a reduced pressure principle detector assembly (RPDA) at the property line.

2) Any system connected to or with provisions for connecting to any unapproved auxiliary water supply will require an RPDA at the property line.

3) Any system that utilizes antifreeze (toxic or non-toxic) will require a reduced pressure principle assembly (RP) at the property line.

4) Any system with private fire hydrants will require a DCDA at the property line.

J. All commercial and industrial facilities.

1.8 The type of backflow prevention required (see "Testing," below) will be at least commensurate with the degree of hazard which exists:

1) An approved air gap of at least twice the inside diameter, but not less than 1 inch, of the incoming supply line measured vertically above the top rim of the vessel, or an approved RP will be installed when the substance which could backflow is hazardous to health, such as, but not limited to, sewage treatment plants, sewage pumping stations, chemical manufacturing plants, plating plants, hospitals, mortuaries, car washes, and medical, dental and veterinary clinics.

2) An approved double check valve assembly (DCVA) will be installed when the substance which could backflow is objectionable, but does not pose an unreasonable risk to health.

3) An approved pressure vacuum breaker will be installed when the substance which could backflow is objectionable, but does not pose an unreasonable risk to health, and where there is no possibility of backpressure in the downstream piping. A shutoff valve may be installed on the line downstream of a pressure vacuum breaker.

1.9 Backflow prevention assemblies installed before the effective date of these Rules and Regulations will be permitted to remain in service if:

A. They were approved at the time of installation but are not on the current list of approved assemblies.

B. They are properly maintained.

C. They are commensurate with the degree of hazard.

D. They are tested annually and perform satisfactorily.

When assemblies of this type are moved, or require more than minimum maintenance, or are on services which have been modified, changed, or remodeled, they will be replaced by assemblies which are approved by the District.

1.10

Testing:

1. The user or owner of the premises where one or more backflow prevention assemblies are installed will cause a test of the assembly(s) to be performed by an Oregon State Health Division certified tester:
 - A. At the time of installation or prior to water service being turned on.
 - B. If the assembly is moved or repaired, immediately thereafter.
 - C. Annually.
2. Unless otherwise provided, the owner of a mobile apparatus on which a backflow prevention assembly or air gap separation is required will cause a test of the assembly or an inspection of the air gap separation to be performed within the year before use in the District and annually thereafter.
3. The District may require more frequent testing of backflow prevention assemblies if the assembly is installed at a facility that poses an extreme health risk or if the assembly fails.
4. All completed backflow test reports must be forwarded to the District within ten (10) working days from the date of the test.
 - A. If the test results indicate that the assembly is working properly, the results will be entered in the District's records as such.
 - B. If the test results indicate that the assembly is not working properly, the assembly must be repaired immediately and retested and the test results forwarded to the District within ten (10) working days from the date of notice.
 - C. If, for some reason, an assembly fails a test and repair is not immediately possible, the District must be notified immediately of the failure, location of the failed assembly, and estimated time of repairs.
 - D. If the District has not received the results of a test required to be performed, it may order a test and add the cost of the test onto the user's water bill, or turn the water off to the premises.
 - E. If the user or owner of a backflow assembly fails to make repairs on a failed backflow assembly within ten (10) days of a test or notice showing the assembly is not operating properly, the District may order the repair and retest and add the cost of the repair and retest to the user's/owner's water bill, or the District may turn the water off to the premises.
 - F. The District may discontinue the water service of any person who refuses or fails to pay for charges added to the water bill per items D and E of this section or for failure to perform or report test results.
5. Oregon State Health Division certified testers who wish to have their names listed on the District's partial list of State Certified Testers, which is mailed with Assembly Test notices, must comply with the District's Backflow Tester Standards.